

Name - SOUNAK DUTTA
Roll no - 2105582

Assignment-1

1.

```
kiit@BT-2105582:~$ pwd  
/home/kiit
```

2.

```
kiit@BT-2105582:~$ ls  
Desktop  Downloads  Pictures  Templates  os2.txt  oslab_copy.txt  
Documents Music      Public    Videos    oslab.txt thinclient_drives
```

3.

```
kiit@BT-2105582:~$ who
```

4.

```
kiit@BT-2105582:~$ cd Desktop  
kiit@BT-2105582:~/Desktop$
```

5.

```
kiit@BT-2105582:~/Desktop$ mkdir Oslab
```

6.

```
kiit@BT-2105582:~/Desktop$ date  
Thu Jan 12 13:23:51 IST 2023
```

7.

```
kiit@BT-2105582:~/Desktop$ touch os1.txt
```

8.

```
kiit@BT-2105582:~/Desktop$ echo I am Sounak Dutta. >>os1.txt  
kiit@BT-2105582:~/Desktop$ echo I live in Joda. >>os1.txt
```

9.

```
kiit@BT-2105582:~/Desktop$ cat os1.txt
I am Sounak Dutta.
I live in Joda.
```

10.

```
kiit@BT-2105582:~/Desktop$ cp os1.txt os1c.txt
kiit@BT-2105582:~/Desktop$ cat os1c.txt
I am Sounak Dutta.
I live in Joda.
```

11.

```
kiit@BT-2105582:~/Desktop$ wc os1c.txt
 3 12 57 os1c.txt
```

12.

```
kiit@BT-2105582:~/Desktop$ wc -l os1.txt
2 os1.txt
```

13.

```
kiit@BT-2105582:~/Desktop$ wc -c os1c.txt
57 os1c.txt
```

14.

```
kiit@BT-2105582:~/Desktop$ wc -w os1c.txt
12 os1c.txt
```

15.

```
kiit@BT-2105582:~/Desktop$ head -1 os1.txt
I am Sounak Dutta.
```

16.

```
kiit@BT-2105582:~/Desktop$ tail -1 os1c.txt
I love playing games.
```

17.

```
kiit@BT-2105582:~/Desktop$ time

real    0m0.000s
user    0m0.000s
sys     0m0.000s
```

18.

```
kiit@BT-2105582:~/Desktop$ times
0m0.064s 0m0.038s
0m0.029s 0m0.002s
```

19.

```
kiit@BT-2105582:~/Desktop$ mv os1.txt Documents
```

20.

```
kiit@BT-2105582:~/Desktop$ rename 's/os1/os1c/' .txt

Command 'rename' not found, but can be installed with:

sudo apt install rename
```

21.

```
kiit@BT-2105582:~/Desktop$ tac os1c.txt
I love playing games.
I live in Joda.
I am Sounak Dutta.
```

22.

```
kiit@BT-2105582:~/Desktop$ su kiit
Password:
su: Authentication failure
```

23.

```
kiit@BT-2105582:~/Desktop$ cat os1c.txt | tac | cat | cat | tac
I am Sounak Dutta.
I live in Joda.
I love playing games.
```

24.

```
kiit@BT-2105582:~/Desktop$ cut -dI -f2 os1c.txt
am Sounak Dutta.
live in Joda.
love playing games.
```

25.

```
kiit@BT-2105582:~/Desktop$ cat os1c.txt | grep in
I live in Joda.
I love playing games.
```

26.

```
kiit@BT-2105582:~/Desktop$ touch os2.txt
kiit@BT-2105582:~/Desktop$ echo I like Rockstar games. >>os2.txt
kiit@BT-2105582:~/Desktop$ comm os1c.txt os2.txt
I am Sounak Dutta.
    I like Rockstar games.
I live in Joda.
I love playing games.
```

27.

```
kiit@BT-2105582:~/Desktop$ echo 1styear | sed 's/1st/2nd/'
2ndyear
```

28.

```
kiit@BT-2105582:~/Desktop$ cat os1c.txt | tee new.txt | cat
I am Sounak Dutta.
I live in Joda.
I love playing games.
```

29.

```
kiit@BT-2105582:~/Desktop$ cat os1c.txt | tr 'lua' 'LUA'
I Am SoUnAk DUttA.
I Live in JodA.
I Love pLaying gAmes.
```

30.

```
kiit@BT-2105582:~/Desktop$ echo Earth is a is planet. >>new.txt
kiit@BT-2105582:~/Desktop$ cat new.txt
I am Sounak Dutta.
I live in Joda.
I love playing games.
Earth is a is planet.
kiit@BT-2105582:~/Desktop$ sort new.txt | uniq
Earth is a is planet.
I am Sounak Dutta.
I live in Joda.
I love playing games.
```

31.

```
kiit@BT-2105582:~/Desktop$ od -t x1 new.txt
00000000 49 20 61 6d 20 53 6f 75 6e 61 6b 20 44 75 74 74
00000020 61 2e 0a 49 20 6c 69 76 65 20 69 6e 20 4a 6f 64
00000040 61 2e 0a 49 20 6c 6f 76 65 20 70 6c 61 79 69 6e
00000060 67 20 67 61 6d 65 73 2e 0a 45 61 72 74 68 20 69
00000100 73 20 61 20 69 73 20 70 6c 61 6e 65 74 2e 0a
00000117
```

32.

```
kiit@BT-2105582:~/Desktop$ od -c new.txt
0000000  I      a  m      S  o  u  n  a  k      D  u  t  t
0000020  a  .  \n  I      l  i  v  e      i  n  J  o  d
0000040  a  .  \n  I      l  o  v  e      p  l  a  y  i  n
0000060  g      g  a  m  e  s  .  \n  E  a  r  t  h  i
0000100  s      a      i  s      p  l  a  n  e  t  .  \n
0000117
```

33.

```
kiit@BT-2105582:~/Desktop$ sort new.txt
Earth is a is planet.
I am Sounak Dutta.
I live in Joda.
I love playing games.
```

34.

```
kiit@BT-2105582:~/Desktop$ gzip os1c.txt
kiit@BT-2105582:~/Desktop$ ls
Documents  Oslab  new.txt  os1c.txt.gz  os2.txt  oslab.txt
```

35.

```
kiit@BT-2105582:~/Desktop$ gunzip os1c.txt
kiit@BT-2105582:~/Desktop$ ls
Documents  Oslab  new.txt  os1c.txt  os2.txt  oslab.txt
```

36.

```
kiit@BT-2105582:~/Desktop$ find . -name "*.txt"
./oslab.txt
./new.txt
./os1c.txt
./os2.txt
```

37.

```
kiit@BT-2105582:~/Desktop$ locate new.txt

Command 'locate' not found, but can be installed with:

sudo apt install mlocate
```

38.

```
kiit@BT-2105582:~/Desktop$ cal
      January 2023
Su Mo Tu We Th Fr Sa
 1  2  3  4  5  6  7
 8  9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
29 30 31
```

39.

```
kiit@BT-2105582:~/Desktop$ gzip new.txt
kiit@BT-2105582:~/Desktop$ ls
Documents  Oslab  new.txt.gz  os1c.txt  os2.txt  oslab.txt
kiit@BT-2105582:~/Desktop$ zcat new.txt
I am Sounak Dutta.
I live in Joda.
I love playing games.
Earth is a is planet.
```

40.

```
kiit@BT-2105582:~/Desktop$ df
Filesystem      1K-blocks      Used Available Use% Mounted on
/dev/sdb         263174212    2556200  247179856   2% /
tmpfs            6280632         0    6280632   0% /mnt/wsl
tools           498799612  304686164  194113448  62% /init
none            6278548         0    6278548   0% /dev
none            6280632         4    6280628   1% /run
none            6280632         0    6280632   0% /run/lock
none            6280632         0    6280632   0% /run/shm
none            6280632         0    6280632   0% /run/user
tmpfs            6280632         0    6280632   0% /sys/fs/cgroup
drivers          498799612  304686164  194113448  62% /usr/lib/wsl/drivers
lib             498799612  304686164  194113448  62% /usr/lib/wsl/lib
C:\             498799612  304686164  194113448  62% /mnt/c
```

41.

```
kiit@BT-2105582:~/Desktop$ mount
/dev/sdb on / type ext4 (rw,relatime,discard,errors=remount-ro,data=ordered)
tmpfs on /mnt/wsl type tmpfs (rw,relatime)
tools on /init type 9p (ro,relatime,dirsync,aname=tools;fmask=022,loose,access=client,trans=fd,rfd=6,wfd=6)
none on /dev type devtmpfs (rw,nosuid,relatime,size=6278548k,nr_inodes=1569637,mode=755)
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,noatime)
proc on /proc type proc (rw,nosuid,nodev,noexec,noatime)
devpts on /dev/pts type devpts (rw,nosuid,noexec,noatime,gid=5,mode=620,ptmxmode=000)
none on /run type tmpfs (rw,nosuid,noexec,noatime,mode=755)
none on /run/lock type tmpfs (rw,nosuid,nodev,noexec,noatime)
none on /run/shm type tmpfs (rw,nosuid,nodev,relatime)
none on /run/user type tmpfs (rw,nosuid,nodev,noexec,noatime,mode=755)
binfmt_misc on /proc/sys/fs/binfmt_misc type binfmt_misc (rw,relatime)
tmpfs on /sys/fs/cgroup type tmpfs (rw,nosuid,nodev,noexec,relatime,mode=755)
drivers on /usr/lib/wsl/drivers type 9p (ro,nosuid,nodev,noatime,dirsync,aname=drivers;fmask=222,dmask=222,mmap,access=client,msize=65536,trans=fd,rfd=4,wfd=4)
lib on /usr/lib/wsl/lib type 9p (ro,nosuid,nodev,noatime,dirsync,aname=lib;fmask=222,dmask=222,mmap,access=client,msize=65536,trans=fd,rfd=4,wfd=4)
cgroup2 on /sys/fs/cgroup/unified type cgroup2 (rw,nosuid,nodev,noexec,relatime,nsdelegate)
cgroup on /sys/fs/cgroup/cpuset type cgroup (rw,nosuid,nodev,noexec,relatime,cpuset)
cgroup on /sys/fs/cgroup/cpu type cgroup (rw,nosuid,nodev,noexec,relatime,cpu)
cgroup on /sys/fs/cgroup/cpusacct type cgroup (rw,nosuid,nodev,noexec,relatime,cpuacct)
cgroup on /sys/fs/cgroup/blkio type cgroup (rw,nosuid,nodev,noexec,relatime,blkio)
cgroup on /sys/fs/cgroup/memory type cgroup (rw,nosuid,nodev,noexec,relatime,memory)
cgroup on /sys/fs/cgroup/devices type cgroup (rw,nosuid,nodev,noexec,relatime,devices)
cgroup on /sys/fs/cgroup/freezer type cgroup (rw,nosuid,nodev,noexec,relatime,freezer)
cgroup on /sys/fs/cgroup/net_cls type cgroup (rw,nosuid,nodev,noexec,relatime,net_cls)
```

42.

```
kiit@BT-2105582:~/Desktop$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: bond0: <BROADCAST,MULTICAST,MASTER> mtu 1500 qdisc noop state DOWN group default qlen 1000
    link/ether 92:86:e2:1a:76:01 brd ff:ff:ff:ff:ff:ff
3: dummy0: <BROADCAST,NOARP> mtu 1500 qdisc noop state DOWN group default qlen 1000
    link/ether 52:a7:51:c3:6b:28 brd ff:ff:ff:ff:ff:ff
4: tunl0@NONE: <NOARP> mtu 1480 qdisc noop state DOWN group default qlen 1000
    link/ipip 0.0.0.0 brd 0.0.0.0
5: sit0@NONE: <NOARP> mtu 1480 qdisc noop state DOWN group default qlen 1000
    link/sit 0.0.0.0 brd 0.0.0.0
6: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether 00:15:5d:f7:92:fd brd ff:ff:ff:ff:ff:ff
    inet 172.27.92.238/20 brd 172.27.95.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::215:5dff:fef7:92fd/64 scope link
        valid_lft forever preferred_lft forever
kiit@BT-2105582:~/Desktop$ mail -s "Johan Liebert" sounak.avash@gmail.com

Command 'mail' not found, but can be installed with:

sudo apt install mailutils
```

43.

```
kiit@BT-2105582:~/Desktop$ ping amazon.com
PING amazon.com (54.239.28.85) 56(84) bytes of data:
64 bytes from 54.239.28.85 (54.239.28.85): icmp_seq=1 ttl=220 time=249 ms
64 bytes from 54.239.28.85 (54.239.28.85): icmp_seq=2 ttl=220 time=314 ms
64 bytes from 54.239.28.85 (54.239.28.85): icmp_seq=3 ttl=220 time=503 ms
64 bytes from 54.239.28.85 (54.239.28.85): icmp_seq=4 ttl=220 time=390 ms
64 bytes from 54.239.28.85 (54.239.28.85): icmp_seq=5 ttl=220 time=396 ms
^C
--- amazon.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4531ms
rtt min/avg/max/mdev = 248.740/370.469/503.434/85.625 ms
```

44.

```
kiit@BT-2105582:~/Desktop$ host amazon.com
amazon.com has address 54.239.28.85
amazon.com has address 52.94.236.248
amazon.com has address 205.251.242.103
amazon.com mail is handled by 5 amazon-smtp.amazon.com.
```

45.

```
kiit@BT-2105582:~/Desktop$ rm os1c.txt
kiit@BT-2105582:~/Desktop$ cat os1c.txt
cat: os1c.txt: No such file or directory
```

46.

```
kiit@BT-2105582:~/Desktop$ more new.txt
I am Sounak Dutta.
I live in Joda.
I love playing games.
Earth is a is planet.
kiit@BT-2105582:~/Desktop$ less new.txt
kiit@BT-2105582: ~/Desktop
I am Sounak Dutta.
I live in Joda.
I love playing games.
Earth is a is planet.
new.txt (END)
```

47.

```
kiit@BT-2105582:~/Desktop$ man cd
cd(n)                                Tcl Built-In Commands                                cd(n)

NAME
    cd - Change working directory

SYNOPSIS
    cd ?dirName?

DESCRIPTION
    Change the current working directory to dirName, or to the home directory (as specified in the HOME environment variable) if dirName is not given. Returns an empty string. Note that the current working directory is a per-process resource; the cd command changes the working directory for all interpreters and (in a threaded environment) all threads.

EXAMPLES
    Change to the home directory of the user fred:
        cd ~fred

    Change to the directory lib that is a sibling directory of the current one:
        cd ../lib

SEE ALSO
    filename(n), glob(n), pwd(n)

KEYWORDS
    working directory

Tcl
Manual page cd(n) line 1/32 (END) (press h for help or q to quit)
```

48.

```
kiit@BT-2105582:~/Desktop$ nano
```



```
kiit@BT-2105582: ~/Desktop
Main nano help text

The nano editor is designed to emulate the functionality and ease-of-use
of the UW Pico text editor. There are four main sections of the editor.
The top line shows the program version, the current filename being
edited, and whether or not the file has been modified. Next is the main
editor window showing the file being edited. The status line is the
third line from the bottom and shows important messages. The bottom two
lines show the most commonly used shortcuts in the editor.

Shortcuts are written as follows: Control-key sequences are notated with
a '^' and can be entered either by using the Ctrl key or pressing the Esc
key twice. Meta-key sequences are notated with 'M-' and can be entered
using either the Alt, Cmd, or Esc key, depending on your keyboard setup.
Also, pressing Esc twice and then typing a three-digit decimal number
from 000 to 255 will enter the character with the corresponding value.
The following keystrokes are available in the main editor window.
Alternative keys are shown in parentheses:

^G (F1)      Display this help text
^X (F2)      Close the current buffer / Exit from nano
^O (F3)      Write the current buffer (or the marked region) to disk
^R (Ins)     Insert another file into current buffer (or into new buffer)

^W (F6)      Search forward for a string or a regular expression
^_ (M-R)     Replace a string or a regular expression
^K (F8)      Cut current line (or marked region) and store it in cutbuffer
^U (F10)     Paste the contents of cutbuffer at current cursor position

^J (F4)      Justify the current paragraph
^T (F12)     Invoke the spell checker, if available

^C (F11)     Display the position of the cursor
^_ (M-G)     Go to line and column number

M-U          Undo the last operation
M-E          Redo the last undone operation

M-A (^G)     Mark text starting from the cursor position
M-G (M-^)    Copy current line (or marked region) and store it in cutbuffer

^L Refresh
^X Close
^W Where Is
^O Where Was
^P Previous
^N Next
^P Prev Line
^N Next Line
^Y Prev Page
^V Next Page
^M- First Line
^M- Last Line
```

49.

```
kiit@BT-2105582: ~/Desktop
kiit@BT-2105582:~/Desktop$ pwd
/home/kiit/Desktop
kiit@BT-2105582:~/Desktop$ time

real    0m0.000s
user    0m0.000s
sys     0m0.000s
kiit@BT-2105582:~/Desktop$ date
Thu Jan 12 17:19:04 IST 2023
kiit@BT-2105582:~/Desktop$ clear
```

```
kiit@BT-2105582: ~/Desktop
kiit@BT-2105582:~/Desktop$
```

50.

```
kiit@BT-2105582:~$ exit
```